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09/483,476	01/14/2000	Mao Xu	1305	8450

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EXAMINER

DUONG, FRANK

ART UNIT PAPER NUMBER

2666

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/483,476

Applicant(s)

XU ET AL.

Examiner

Frank Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17-31 and 34-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17-31 and 34-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. This Office Action is a response to the preliminary amendment dated 07/03/2000.  
Claims 1-14, 17-31 and 24-46 are pending in the application.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 01/14/2000 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

### ***Specification***

3. The disclosure is objected to because of the following informalities:

Page 12, lines 16-17, "CLAIMS: We claim:" should be deleted.

Page 13, first line should start with --We claim-- or --What is claim is--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-14 and 17-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Sriram et al (USP 6,269,738) (hereinafter "Sriram").

In Sriram reference Sriram discloses a dynamic call admission control in a packet voice using AAL2 system that takes into account different bandwidth need for call types in deciding whether to admit a new call (*see Abstract and thereafter*). Sriram's description of the invention read on the claimed invention as corresponding below:

Regarding **claim 1**, in accordance with Sriram reference entirety, Sriram discloses a communication hub (Fig. 4; 125) comprising:

a silence suppression block (130) configured to compute a silence suppression gain in response to an incoming call request, wherein the silence suppression gain varies based on a number of currently active calls (*see col. 6, line 58 to col. 7, line 8, Sriram discloses the processor 130 performs functions such as silence suppression, assignment of sequence numbers, and background noise level notification and col. 7, lines 43-45, Sriram discloses silence suppression is applied to voice calls*);

a call admission block (135) configured to control access to a communication network (100) based on the silence suppression gain for the incoming call request (*see col. 7, lines 9-22*); and

a control system (110) configured to determine a call type of the incoming call (*see col. 6, lines 19-50, Sriram discloses call controller associates a predetermined call type with each call*) and control the silence suppression block (130) and the call admission block (135).

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Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Sriram further discloses an interface system (125) configured to receiving the incoming call request (106) and exchange call traffic (ATM cells) with the communication network (100) over a communication path (*connection between 135 and 100*) (see col. 7, lines 9-22).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales discussed above), Sriram further discloses wherein the call type comprises: one of a voice call and a voice-band data call (see Fig. 5 and col. 6, lines 22-41).

Regarding **claim 4**, in addition to features recited in base claim 3 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on a number of currently active voice calls (see col. 7, lines 43-45).

Regarding **claim 5**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on a mean talkspurt duration (see Fig. 5 and Voice Activity=40% and col. 6, lines 25-30).

Regarding **claim 6**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on a mean silence duration (see Fig. 5 and Voice Activity=40% and Average Silence=60% and col. 6, lines 25-30).

Regarding **claim 7**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is

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configured to compute the silence suppression gain based on a packetization time (see *Fig. 5; Packetization Interval=5ms and col. 6, lines 52-57*).

Regarding **claim 8**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on a number of supposed voice calls (see *col. 7, lines 35-45*).

Regarding **claim 9**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on an activity factor (see *Fig. 5; Voice Activity=40% and col. 6, lines 28-30*).

Regarding **claim 10**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the silence suppression block is configured to compute the silence suppression gain based on a silence factor (see *Fig. 5; Average Silence=600ms and col. 6, lines 28-30*).

Regarding **claim 11**, in addition to features recited in base claim 4 (see rationales discussed above), Sriram further discloses wherein the call admission block (135) (see *col. 6, line 58 to col. 7, line 8*) is further configured to compute an effective bandwidth for the number of currently active voice calls (*col. 8, lines 36-37*), a number of currently active voice-band data calls (*col. 8, lines 38-47*), and the incoming call based on the silence suppression gain (*col. 8, lines 36-37*).

Regarding **claim 12**, in addition to features recited in base claim 11 (see rationales discussed above), Sriram further discloses wherein the call admission block

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is further configured to deny access (430) to the communication network if the effective bandwidth ( $B_0$ ) is greater than a provision bandwidth ( $W$ ) for the communication path (see Fig. 8, block 405 and 430 and col. 8, lines 64-67).

Regarding **claim 13**, in addition to features recited in base claim 12 (see rationales discussed above), Sriram further discloses wherein the call admission block is further configured to grant access to the communication network (100) if the effective bandwidth ( $B_0$ ) is less than the provisioned bandwidth ( $W$ ) for the communication path (see Fig. 8, block 405 and 410 and col. 9, lines 1-6).

Regarding **claim 14**, in addition to features recited in base claim 12 (see rationales discussed above), Sriram further discloses wherein the call admission block is further configured to grant access to the communication network (100) if the effective bandwidth ( $B_0$ ) is equal the provisioned bandwidth ( $W$ ) for the communication path (see Fig. 8, block 405 and 410 and col. 9, lines 1-6).

Regarding **claim 17**, in accordance with Sriram reference entirety, Sriram discloses a communication hub (Fig. 4; 125) comprising:

receiving (125) an incoming request (106);

determining a call type (110) of the incoming call request (see col. 6, lines 19-50, Sriram discloses call controller 110 associates a predetermined call type with each call);

computing (130) a silence suppression gain, wherein the silence suppression gain varies based on a number of currently active calls (see col. 6, line 58 to col. 7, line 8, Sriram discloses the processor 130 performs functions such as silence suppression,

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*assignment of sequence numbers, and background noise level notification and col. 7, lines 43-45, Sriram discloses silence suppression is applied to voice calls); and*

controlling access (135) to a communication network (100) based on the silence suppression gain for the incoming call request (see *col. 7, lines 9-22*).

Regarding **claim 18**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses exchanging call traffic with the communication network (100) over a communication path (*connection between 135 and 100*) (see *col. 7, lines 9-22*).

Regarding **claim 19**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses wherein determining the call type comprises: determining if the incoming call request is a voice call request (see *Fig. 5 and col. 6, lines 22-41*).

Regarding **claim 20**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses wherein determining the call type comprises: determining if the incoming call request is a voice-band data call request (see *Fig. 5 and col. 6, lines 22-41*).

Regarding **claim 21**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on a number of currently active calls (see *col. 7, lines 43-45*).

Regarding **claim 22**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence



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suppression gain based on a mean talkspurt duration (see *Fig. 5; Average Talkspurt=400ms and col. 6, lines 28-30*).

Regarding **claim 23**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on a mean silence duration (see *Fig. 5; Average Silence=600ms and col. 6, lines 28-30*).

Regarding **claim 24**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on a packetization time (see *Fig. 5; Packetization Interval=5ms and col. 6, lines 52-57*).

Regarding **claim 25**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on an activity factor (see *Fig. 5; Voice Activity=40% and col. 6, lines 28-30*).

Regarding **claim 26**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on a silence factor (see *Fig. 5; Average Silence=600ms*).

Regarding **claim 27**, in addition to features recited in base claim 17 (see rationales discussed above), Sriram further discloses computing the silence suppression gain based on a number of supposed voice calls (see *col. 7, lines 35-45*).

Regarding **claim 28**, in addition to features recited in base claim 21 (see rationales discussed above), Sriram further discloses computing an effective bandwidth

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for the number of currently active voice calls (*col. 8, lines 36-37*), a number of currently active voice-band data calls (*col. 8, lines 38-47*), and the incoming call based on the silence suppression gain (*col. 8, lines 36-37*).

Regarding **claim 29**, in addition to features recited in base claim 28 (see rationales discussed above), Sriram further discloses wherein controlling access to the communication network (100) comprises denying access (430) to the communication network if the effective bandwidth ( $B_0$ ) is greater than a provision bandwidth ( $W$ ) for the communication path (see *Fig. 8, block 405 and 430 and col. 8, lines 64-67*).

Regarding **claim 30**, in addition to features recited in base claim 29 (see rationales discussed above), Sriram further discloses wherein controlling access to the communication network (100) comprises granting access (410) to the communication network if the effective bandwidth ( $B_0$ ) is less than a provision bandwidth ( $W$ ) for the communication path (see *Fig. 8, block 405 and 410 and col. 9, lines 1-6*).

Regarding **claim 31**, in addition to features recited in base claim 29 (see rationales discussed above), Sriram further discloses wherein controlling access to the communication network (100) comprises granting access (410) to the communication network if the effective bandwidth ( $B_0$ ) is equal than a provision bandwidth ( $W$ ) for the communication path (see *Fig. 8, block 405 and 410 and col. 9, lines 1-6*).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sriram.

Regarding claims 34-46, the claims call for a software product performing the steps of the method claims 17-31. Sriram discloses the method of claims 17-31 (see rationales discussed above) but fails to disclose the claimed software product.

However, translating the method steps into a computer program is deemed obvious.

Thus, it would have been obvious to those skilled in the art, having read Sriram reference, at the time of the invention was made to translate the method steps taught by Sriram (discussed in the rejection of claims 17-31) into a computer program to arrive the claimed invention with a motivation to provide for efficient bandwidth management in a call admission control (see *col. 2, lines 12-13*).

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gvozdanovic (USP 6,600,720).

Sabry et al (USP 6,233,223).

Chan (USP 5,897,613).

Baldwin et al, AAL-2-A New ATM Adaptation Layer for Small Packet

Encapsulation and Multiplexing, Bell Labs Technical Journal, pages 111-131, 1997.

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McLoughlin et al, Adapting Voice For ATM Networks: An AAL2 Tutorial, General DataComm, pages 1-13, 1997.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is (703) 308-5428. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Frank Duong  
September 12, 2003